

IAP17 Rec'd PCT/PTO 28 APR 2006

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) ~~An earplug~~The earplug comprising:

a plug member for blocking a person's ear canal, said plug member comprising at least one acoustic channel for channeling incoming acoustic energy into said person's ear;~~said earplug farther comprising~~

a detector for detecting an acoustic energy level or for detecting a control signal that is indicative ~~for~~of an acoustic energy level to be received;~~;~~ and

an acoustic valve positioned in said acoustic channel, and a control unit that, in response to said detector, controls said valve so as to adjust attenuation of~~attenuate the~~ acoustic energy channeled through said acoustic channel.

2. (Currently Amended) ~~Earplug~~The earplug according to claim 1, wherein said detector is positioned on ~~the~~a mid-ear side of the acoustic valve.

3. (Currently Amended) ~~Earplug~~The earplug according to claim 1 ~~or 2~~, wherein said valve comprises a valve seat and a valve member, wherein the valve member is actuated by the control unit and wherein the valve seat comprises a body of micro-channels.

4. (Currently Amended) ~~Earplug~~The earplug according to claim 3, wherein the body of microchannels comprises a wiring mesh.

5. (Currently Amended) ~~Earplug~~The earplug according to ~~any of the preceding claims~~claim 3 ~~or 4~~, wherein the valve member comprises a flexible foil closing said valve seat.

6. (Currently Amended) ~~Earplug~~The earplug according to ~~any of the claims 3-5~~claim 3, wherein said valve seat and said valve member each comprise an electrode for providing electrostatic attraction.

7. (Currently Amended) ~~Earplug~~The earplug according to ~~any of the claims 3-5~~claim 3, wherein at least one of either the valve seat and/or valve member are actuated by a piezo-element.

8. (Currently Amended) ~~Earplug~~The earplug according to ~~any of the preceding claims~~claim 1, wherein, said valve is maintained at a ~~predetermined~~specified attenuating position when said control unit is inactive.

9. (Currently Amended) ~~Earplug~~The earplug according to ~~any of the preceding claims~~claim 1, wherein said acoustic valve and said detector are comprised in a modular housing that is insertable in the acoustic channel of said plug member.

10. (Currently Amended) ~~Earplug~~The earplug according to ~~any of the preceding claims~~claim 1, wherein the control signal is an acoustic signal.

11. (Currently Amended) ~~Earplug~~The earplug according to ~~any of the preceding claims~~claim 1, wherein said detector comprises a microphone.

12. (Currently Amended) ~~Modular~~A modular housing to be fitted in an acoustic channel of an ear plug, the modular housing comprising:

a detector for detecting an acoustic energy level or for detecting a control signal that is indicative for an acoustic energy level to be received, and

an acoustic valve to be positioned in said channel, ~~further comprising; and~~

a control unit that, in response to said detector, controls said acoustic valve so as to ~~attenuate the~~adjust attenuation of acoustic energy channeled through the acoustic channel.

13. (New) The modular housing according to claim 12, wherein said detector is positioned on a mid-ear side of the acoustic valve.

14. (New) The modular housing according to claim 12, wherein said valve comprises a valve seat and a valve member, wherein the valve member is actuated by the control unit and wherein the valve seat comprises a body of micro-channels.

15. (New) The modular housing according to claim 14, wherein the body of micro-channels comprises a wiring mesh.

16. (New) The modular housing according to claim 14, wherein the valve member comprises a flexible foil closing said valve seat.

17. (New) The modular housing according to claim 14, wherein said valve seat and said valve member each comprise an electrode for providing electrostatic attraction.

18. (New) The modular housing according to claim 14, wherein at least one of either the valve seat and/or valve member are actuated by a piezo-element.

19. (New) The modular housing according to claim 12, wherein, said valve is maintained at a specified attenuating position when said control unit is inactive.

20. (New) The modular housing according to claim 12, wherein said detector comprises a microphone.